Wireless Bureau Docket No. 01-309, RM-8658

Dear Sirs;

I am writing to request that you repeal the current exemption addressed in the NPRM for manufacturers of portable digital phones from making their products hearing aid compatible. As a hard of hearing person, and a member of an increasingly "digitalized" society, I find it unacceptable that I, and millions of others with hearing loss be essentially denied access to this increasingly vital communications portal.

In filing my comments on the last day, I have had the opportunity to look at the comments of others on this matter, and this has helped me in coming up with several key questions to be asked in regard to this matter.

Is technologically feasible for digital wireless telephones to be made compatible with hearing aids?

Part of the issue, depends on how you look at and define this problem. It never cease to be amazed when people tell me about their dealings with the FCC staff, and how the staff by and large, express surprise that hearing aid incompatibility with digital telephones is still a problem. So the first step is acknowledging that a problem with hearing aid incompatibility exists.

From an engineering perspective, the problem of interference can be broken down into two components. First, there is the problem of detection of the amplitude modulation of the Radio Frequency energy generated in the process of digital telephone communication. Second, is the problem of a strong magnetic field being generated by the pulsing direct current supply in the telephone.

The solutions to the first problem lies with the hearing aid itself, better shielding and circuitry should go along way towards minimizing the problem. It would not be unreasonable to ask that the FCC strongly encourage the manufacturers of digital phones to consult with hearing aid manufacturers, and test their phones with regards to hearing aid compatibility before being allowed to put their products out to market.

The second problem is one where the FCC should require digital telephone manufacturers to significantly reduce or eliminate all together the magnetic field generated by the supply current in their telephones. At the same time the magnetic field generated by the phones voice speaker must be of sufficient magnitude to be picked up by the "T" coil of the hearing aid user.

Surprisingly, another component to this problem has been largely limited to academic studies, and to my knowledge is not a significant part of the general public discourse. How different service delivery technologies, such as, GSM, TDMA, and CDMA etc. affect hearing aid compatibility. One of these academic studies, which I participated in looked at 1900 and time division multiple access technologies.

Approximately 80 percent of participants in the study rated the telephones as Being unusable. When I associate this data with my personal communications within the Hard of Hearing Community, this indicates a wide spread disparity between the types of services. On the other hand, the CDMA digital format

(spread spectrum) has been reported as producing the least amount of disturbing interference.

The implications of this for the FCC are clear. Each technology may have different hearing aid compatibility issues that are unique to that delivery method. This in turn affects not only hearing aid compatibility, but also considerations of how licenses are issued in a particular area.

For example, if all the licenses in a service area were for example GSM and TDMA, it most likely would contribute greatly towards effectively precluding many hard of hearing people from access to digital phone services in that area.

The second issue I would look at is perhaps the most significant one.

Will continuing the exemption on digital wireless telephones, without revoking or limiting it adversely affect people with hearing loss?

The answer is without question is …Yes!

If I may quote from the brief submitted on behalf of SHHH, "hearing aid users are being denied access to an increasingly vital technology. PCS devices are no longer a novelty or a high-end product. Nor are they primarily used for emergency situations. They have become commonplace and consumers are relying on them more and more."

In addition, alternative analog service options, are being phased out in many service areas, and are becoming harder to find and offer far less service for the money than comparable digital services. In some service areas, hard-wired service is now considered an "option". Since when did accessibility to communication services become an option?

The bottom line here is that if wireless manufacturers remain exempt from making their handsets hearing aid compatible under the HAC Act, full and equal access will never be achieved people who use hearing aids with PCS devices. Without exception, access to telecommunications for people with hearing loss has come about through legislation. Hearing aid compatibility and volume control in voice phones, decoding capability in TVs, and telecommunications relay services are just a few examples.

Historically speaking manufacturers have shown a great resistance toward modifying their products and will not willingly incorporate Part 68 components into their telephones. It was past FCC Commissioner Harold Furchtgott-Roth, who conceded during the discussions on the development of regulations for Section 255, that "This particular area of regulation may well be a rare instance where the involvement of the federal government introduces efficiencies unlikely to develop in the market."

A third question that comes to mind is,

Is this change in the public interest?

I think that requiring the manufacturers of digital phones to make their products fully accessible and usable by 10% of the American population that is hard of hearing and who are mostly currently excluded from using their product is first and foremost sound and proactive social and economic policy.

The industries tired old song of "it would represent an undue burden, and increase the costs to unreasonable levels" is based on a one sided focus on the technologies involved. These issues present the industry with some challenges, but they are not insurmountable, or overly burdensome. In focusing on one side of the issue, the industry has completely overlooked another side of the problem.

The industry with few exceptions has mostly overlooked this segment of the market. How many manufacturers have asked themselves, "What do hard of hearing people want from our products, and how can we give it to them? The truth is, many hard of hearing people are fed up with having to live their lives around telecommunication barriers.

Now that a resource exists that gives them the freedom and flexibility that has been previously denied to them, I would expect to see a huge rush of hard of hearing people needing, and from an marketing perspective, perceiving the need for digital phones.

Maybe I'm naïve, but I never heard of an industry that wouldn't take the time and effort to modify its products to meet customer demand if represented an opportunity to increase its market by an additional 10%. More importantly, by the FCC compelling the communications industry to take these steps, it will help make them more responsive to considering the communication needs of other disabled populations when they bring their future products to market.

While I'm on the subject of markets and costs, I would like to qualify what most hard of hearing consumers feel constitutes an accessible digital phone. One that is accessible in the conventional manner, either directly through the hearing aids microphone setting, or over the t-coil setting available in many hearing aids.

Most hard of hearing people are fed up with bearing the burden of having to purchase high priced, user unfriendly, and proprietary auxiliary accessories such as neckloops, silhouette coils or direct audio input interfaces in order to be able to use their digital phones. We want digital phones that work and don't require carrying around extra add on equipment.

In summary, I respectfully request the FCC eliminate this exemption, and take steps to compel the industry to take concrete and timely steps in addressing the digital phone accessibility problems I have outlined.

Sincerely,

Jonathan Taylor